EDITORIAL

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Multiple Criteria Decision Making (MCDM) can be defined as the study of methods and procedures by which concerns about multiple conflicting criteria can be formally incorporated into the decision making. Thousands of academic publications about MCDM are available in the SCI/SSCI databases nowadays resulting from the previous efforts of numerous scholars. This special issue is dedicated to Prof. Gwo-Hshiung Tzeng for his 70th birthday, who first introduced MCDM to Taiwan in early 1980s. He is also my advisor professor in National Chiao-Tung University here.

The objective of this special issue is to publish theoretical advances and real applications related to MCDM in the state of the art. These papers are summarized as follows: the paper "A Study on Management Methodology for the Complexity of Social System—the Combination of MCDM and SSM" by Fan and Kuang, presents a management methodology on social system by combining the multi-criteria decision making (MCDM) and soft system management (SSM). The paper "An Analysis of Multi-Criteria Decision Making Methods" by Velasquez and Hester, performs a literature review of common Multi-Criteria Decision Making methods, examines the advantages and disadvantages of the identified methods. The paper "Multi-objective Decision Making with a Large Number of Objectives: An Application for Europe 2020" by Brauers and Zavadskas, uses the multi-objective programming to support the growing and sustainable economy of European Union by 2020. The paper "A Conceptual Design of a Mobile Healthcare Device – An Application of Three-stage QFD with ANP and TRIZ" by Shih and Chen, sets up a conceptual design of a future mobile or portable healthcare device using the quality function development (QFD) with the analytic network process (ANP) and the theory of inventive problem solving (TRIZ). The paper "Min-max Goal Programming Approach for Solving Multi-objective De-Novo Programming Problems" by Umarusman, uses positive and negative ideals for solving the well-known De-Novo problem. The paper "Measuring Inconsistency of Pair-wise Comparison Matrix with Fuzzy Elements" by Ramík and Korviny, deals with measuring inconsistency and incompatibility of pair-wise comparison matrix under the fuzzy situation.

Finally, I am happy to finish this tough task, Prof. Tzeng also mentioned the paper "Comments on Multiple criteria decision making (MCDM) methods in economics: An overview", Technological and Economic Development of Economy, 18(4), 672-695, 2012. Interested readers are encouraged to refer this article in order to make this special issue complete.

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